



# ENERGIST

BEYOND BUILDING

## Sustainability Statement

**Kenavon Drive, Reading**

**On behalf of Berkeley Homes (Western) Limited**

**B.KD.RG1**

**R03**

**Date: 12 March 2025**



## Revision History

| Revision | Issue Date | Description                                                                     | Issued by | Checked by |
|----------|------------|---------------------------------------------------------------------------------|-----------|------------|
| 00       | 20/12/2024 | Draft Report                                                                    | MK        | MW         |
| 01       | 15/01/2025 | Fabric specifications and building services added                               | MK        | MW         |
| 02       | 24/01/2025 | Client's comments addressed                                                     | MK        | MW         |
| 03       | 12/03/2025 | A summary of the BREEAM Domestic Refurbishment 2014 Pre-Assessment report added | MK        | MW         |
|          |            |                                                                                 |           |            |
|          |            |                                                                                 |           |            |

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## Contents

|                                                                |           |
|----------------------------------------------------------------|-----------|
| <b>EXECUTIVE SUMMARY.....</b>                                  | <b>4</b>  |
| <b>1. INTRODUCTION.....</b>                                    | <b>8</b>  |
| <b>2. SITE DESCRIPTION .....</b>                               | <b>9</b>  |
| <b>3. ENERGY / CO<sub>2</sub>.....</b>                         | <b>11</b> |
| <b>4. WATER .....</b>                                          | <b>14</b> |
| <b>5. MATERIALS.....</b>                                       | <b>18</b> |
| <b>6. SURFACE WATER RUN-OFF .....</b>                          | <b>20</b> |
| <b>7. WASTE.....</b>                                           | <b>24</b> |
| <b>8. POLLUTION .....</b>                                      | <b>28</b> |
| <b>9. HEALTH AND WELL-BEING.....</b>                           | <b>31</b> |
| <b>10. TRANSPORT.....</b>                                      | <b>34</b> |
| <b>11. MANAGEMENT .....</b>                                    | <b>36</b> |
| <b>12. ECOLOGY .....</b>                                       | <b>39</b> |
| <b>13. CONCLUSIONS.....</b>                                    | <b>42</b> |
| <b>APPENDIX 1: LIST OF ABBREVIATIONS .....</b>                 | <b>45</b> |
| <b>APPENDIX 2: PLANNING POLICY AND DESIGN GUIDANCE .....</b>   | <b>46</b> |
| <b>APPENDIX 3: DOMESTIC WATER EFFICIENCY CALCULATIONS.....</b> | <b>59</b> |



## EXECUTIVE SUMMARY

This Sustainability Statement has been produced by Energist UK on behalf of Berkeley Homes (Western) Limited ('the Applicant') to satisfy the planning validation requirement, submitted to the Reading Borough Council, in support of the creation of a first-floor mezzanine to include four additional dwellings to the existing mid-block at Huntley Wharf, Kenavon Drive, Reading, RG1 ('the Development'), where the former space was a void above the restaurant area.

This development will be delivered in accordance with Building Regulations 2013, ensuring compliance with the relevant standards applicable at the time of submission. A BREEAM Domestic Refurbishment 2014 assessment will be undertaken for the residential conversions to achieve a 'Very Good' rating. Energist UK has completed a Pre-Assessment, confirming that the development is expected to meet the minimum credit requirements for a 'Very Good' rating, with a potential overall score of 62.5%.

The Applicant is committed to delivering a sustainable and environmentally responsible development that enhances the character of the local area while setting a positive benchmark for future schemes. The proposal will contribute to the surrounding community by providing well-designed, functional, and high-quality living spaces.

The key sustainability features outlined within the Sustainability Statement are:

**ENERGY / CO<sub>2</sub>:** The Applicant is committed to delivering a sustainable and energy-efficient development in line with the energy hierarchy. A 'Fabric First' approach will reduce energy demand by enhancing the building fabric with high-quality insulation and optimised glazing. Additionally, CHP will be incorporated for space heating and hot water. Overheating risks will be mitigated through passive design measures, including natural ventilation and appropriately specified glazing, ensuring compliance with current standards.

**WATER:** Water efficiency is prioritised throughout the development by incorporating water-saving fixtures and fittings, achieving a consumption rate of 105 litres per person per day. Flow-control devices and water meters on the mains supply will facilitate monitoring and help minimise water usage.



**MATERIALS:** The Applicant has implemented a sustainable approach to materials procurement, prioritising those with low embodied carbon and environmental impact. Materials are being responsibly sourced, with timber certified by schemes such as FSC or PEFC. The development has considered durability and robustness, using materials that are long-lasting, recycled, or reclaimed where possible. Efforts have also been made to minimise the use of materials with high Global Warming Potential (GWP).

**SURFACE WATER RUN-OFF:** A Flood Risk Assessment (FRA) and Drainage Strategy have been reviewed to address the site's vulnerability to fluvial, tidal, and surface water flooding. The drainage design will incorporate measures to manage surface water run-off if needed, including attenuation features such as permeable paving, subsurface storage, and landscaped areas. The strategy will be designed to accommodate the 1 in 100-year rainfall event, with an additional 40% allowance for climate change.

**WASTE:** A Site Waste Management Plan has been developed to reduce waste during construction by prioritising prevention, reuse, and recycling of construction and demolition materials, minimising landfill disposal. Dedicated refuse and recycling storage will be provided for residents, supporting responsible waste management through clearly defined and accessible facilities.

**POLLUTION:** The development includes measures to reduce pollution:

- **Air Quality:** Energy systems will comply with NOx emissions standards, with measures in place to control construction-related dust and emissions.
- **Noise:** Noise pollution is minimised through careful design and adherence to best practice construction management.
- **Light:** External lighting will be energy-efficient, strategically positioned, and fitted with timers and sensors to prevent glare, light trespass, and sky glow while maintaining safety and security.

**ECOLOGY:** The Applicant is dedicated to preserving and enhancing the site's ecological value wherever practical. Landscaping features planting beds and hedges with native and pollinator-friendly species to promote local biodiversity. Furthermore, measures have been implemented to safeguard the adjacent River Kennet and nearby natural features, contributing to the protection and enhancement of local wildlife habitats.



**HEALTH AND WELL-BEING:** The development promotes comfort and well-being through:

- Maximising natural light with well-placed windows.
- Ensuring effective natural ventilation to improve air quality and manage overheating.
- Providing private outdoor amenity space for residential units, as shown in the site layout.
- Incorporating high-quality internal finishes and sound insulation to minimise disturbances.
- Designing adaptable layouts to meet the long-term needs of future occupants.

**TRANSPORT:** The development supports sustainable and low-carbon travel through the provision of secure cycle parking that complies with policy standards, while maintaining connectivity to nearby walking and cycling routes. An assessment of the existing cycle parking allocation has confirmed it is sufficient to accommodate the additional dwellings, meaning no changes to the ground floor plan are required. The small scale of the proposal limits opportunities for significant infrastructure improvements.

**MANAGEMENT:** The construction phase adheres to best practice principles to mitigate environmental and social impacts, including dust, noise, and pollution. On-site activities are monitored and managed to ensure compliance with sustainability guidelines. Post-completion, measures will be in place to enhance resident safety and security, such as well-lit spaces, secure entry points, and conveniently located amenities.

In summary, this statement confirms that the proposed four dwellings comply with the relevant sustainability and energy policies, while recognising the modest scale and specific context of the development.

The Sustainable Design and Construction SPD (2019) requires BREEAM certification for residential conversions to meet a 'Very Good' rating.

Therefore, Energist UK has conducted a Pre-Assessment to determine the achievable BREEAM rating for the proposed development.



The Pre-Assessment confirms that the development will meet the minimum standard credits required for a BREEAM 'Very Good' rating BREEAM Domestic Refurbishment 2014, with a potential overall score of 62.5%. This meets the BREEAM rating level required by Reading Borough Council.

| BREEAM Section       | Credits available | Credits achieved | Section weighting (fully fitted) % | Section score (%) |
|----------------------|-------------------|------------------|------------------------------------|-------------------|
| Management           | 11                | 8                | 12                                 | 8.73              |
| Health and wellbeing | 12                | 6                | 17                                 | 9.92              |
| Energy               | 29                | 17.50            | 43                                 | 29.66             |
| Water                | 5                 | 4.5              | 11                                 | 9.9               |
| Materials            | 48                | 27               | 8                                  | 4.67              |
| Waste                | 5                 | 5                | 3                                  | 3.00              |
| Pollution            | 8                 | 5                | 6                                  | 3.75              |
| Innovation           | 10                | 2                | 10                                 | 2                 |
| Final BREEAM Score   |                   |                  |                                    | 66.32%            |
| BREEAM rating        |                   |                  |                                    | <b>Very Good</b>  |

Figure 1 – Summary of the BREEAM credits and the final BREEAM rating at the Pre-Assessment stage. [Source: Energist UK, BREEAM Domestic Refurbishment 2014 Pre-assessment Report, March 2025]

For further details, please consult "BREEAM Domestic Refurbishment 2014 Pre-assessment Report" for Kenavon Drive, Reading, produced by Energist UK on the 10<sup>th</sup> of March 2025.

The Applicant has therefore adopted a proportionate sustainability approach that meets the objectives of the Reading Borough Local Plan (2019) and SPD.



## 1. INTRODUCTION

### 1.1 OBJECTIVES

For the purposes of this Statement, sustainable development is defined as:

*Development that meets the needs of the present without compromising the needs of future generations to meet their own needs.*

*Source: Brundtland (1987)*

This definition addresses the idea that limitations can be imposed by development and on the environment's ability to meet present and future needs. The Applicant demonstrates their commitment to designing a sustainable development at Kenavon Drive, Reading by:

- Addressing key environmental issues.
- Responding to planning policies specific to these environmental issues.
- Delivering actions and standards of environmental performance demonstrating all measures being taken to embed sustainability.

The way in which the Applicant delivers their strategy for a sustainable development is in line with the local policies; the requirements of set out using the following headings:

- Energy / CO<sub>2</sub>.
- Water.
- Materials.
- Surface Water Run-off.
- Waste.
- Pollution.
- Health and Well-being.
- Management.
- Ecology.

This Statement will set out how the Applicant will address and positively integrate measures that ensure an environmentally responsible approach to the Site and construction of the development, addressing each of the above issues in turn.



## 2. SITE DESCRIPTION

The proposed development is located at Huntley Wharf, Kenavon Drive, Reading, RG1, a vibrant and well-connected area within central Reading, within the **Reading Borough Council**.

The site is situated near the River Kennet, offering a mix of residential, commercial, and leisure spaces. The surrounding area includes modern residential developments, retail facilities, and public amenities, with close proximity to Reading town centre, providing excellent access to shops, restaurants, and transport links, including Reading Railway Station.

The proposal involves the creation of a first-floor mezzanine to include **four additional dwellings** to the existing mid-block. The apartments on the northern façade will benefit from private access to the podium space, offering a secure and usable outdoor area for residents. Meanwhile, the apartments on the southern façade will feature views overlooking Riverside Square and the River Kennet, enhancing the sense of place and connection to the natural and built environment.

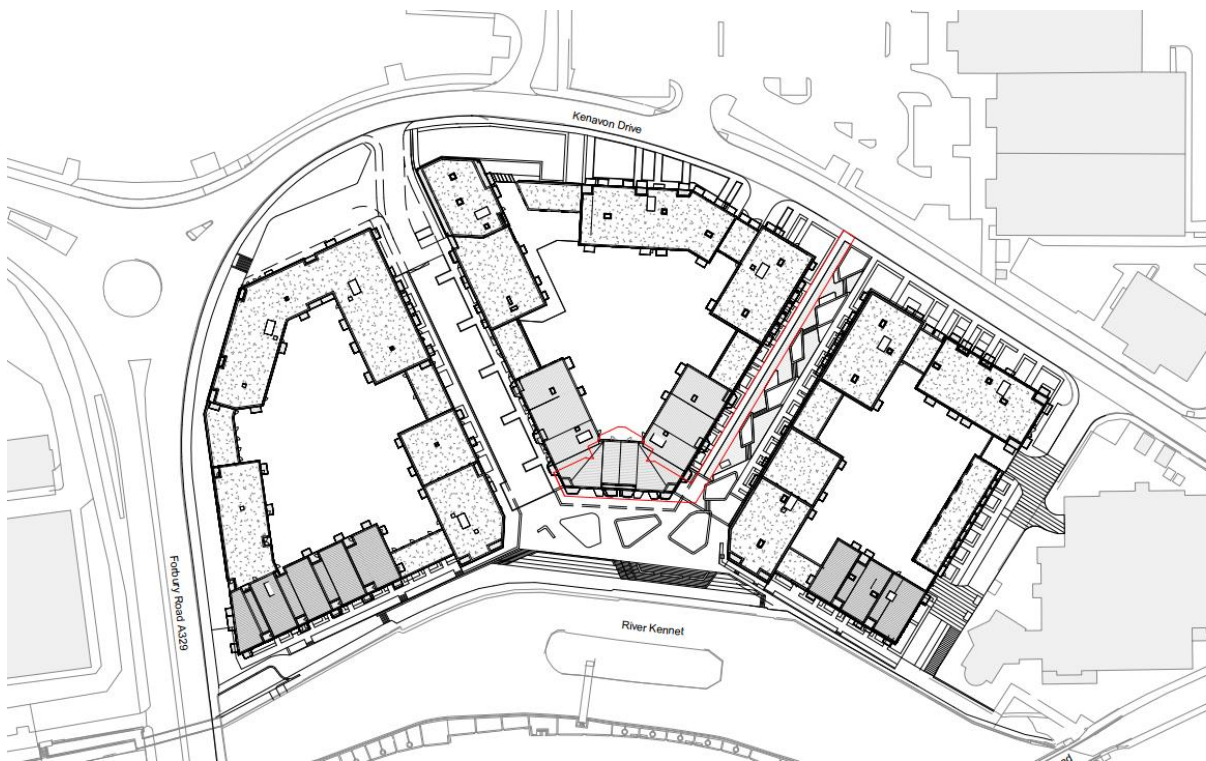


Figure 2 – Site location plan highlighting the creation of first-floor mezzanine to include additional dwellings to existing mid-block.

[Source: PRP Architects, Kenavon Drive, Site Location Plan, drawing ref.: KD - PRP - MID - ZZ - DG - A – 2001, December 2024, provided to Energist UK by Berkeley Homes (Western) Limited]



Figure 3 below illustrates the proposed residential layout of the first floor at Kenavon Drive, Reading, RG1.

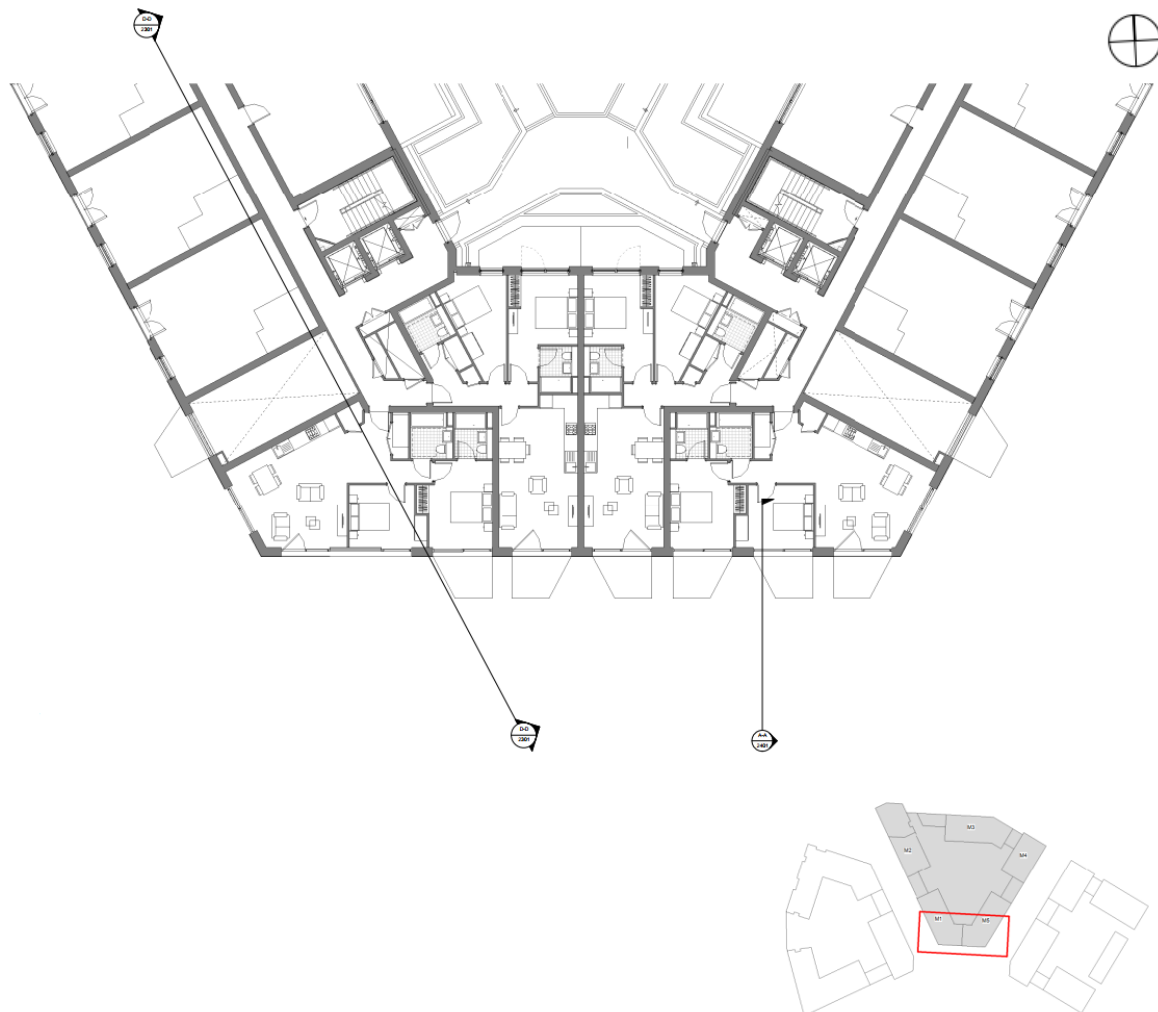


Figure 3 – The proposed residential layout of the first floor at Kenavon Drive, Reading, RG1.  
[Source: PRP Architects, Kenavon Drive, Middle Block Proposed GA Plan - First Floor, drawing ref.: KD - PRP - MID - 01 - DG - A - 2111, December 2024, provided to Energist UK by Berkeley Homes (Western) Limited]

The development aims to integrate seamlessly with its surroundings while providing high-quality residential accommodation in a sustainable and accessible location.



### 3. ENERGY / CO<sub>2</sub>

|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Policy Drivers | <p><b>The Climate Change Act (2008)</b></p> <p><b>National Planning Policy Framework (2023)</b></p> <p><b>Reading Borough Local Plan (2019)</b></p> <ul style="list-style-type: none"><li>▪ Policy CC2: Sustainable Design and Construction</li><li>▪ Policy CC3: Adaptation to Climate Change</li><li>▪ Policy CC4: Decentralised Energy</li></ul> <p><b>Sustainable Design and Construction SPD (2019)</b></p> <p><i>Refer to Appendix 2 for detailed policies.</i></p> |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

#### 3.1 INTRODUCTION

Achieving sustainable development requires plans to deliver net gains across economic, social, and environmental objectives (NPPF, paragraph 8). Environmental objectives focus on the prudent use of natural resources, minimising waste, mitigating and adapting to climate change, and transitioning to a low-carbon economy. The South of England is likely to face significant challenges from climate change and evolving weather patterns. To avoid the costs of future retrofitting, buildings should be designed to be future-proof — — suitable for a range of climate conditions and easily adaptable to emerging technologies. Given that the buildings constructed today will likely remain in use into the next century, creating adaptable and efficient developments will have long-term benefits.

#### 3.2 ENERGY / CO<sub>2</sub>

The Applicant has adopted a sustainable design approach, incorporating efficient Low and Zero-Carbon (LZC) technologies to ensure compliance with The Climate Change Act (2008) and the National Planning Policy Framework (2024). The strategy also addresses key Reading Borough Local Plan (2019) policies, including Policy CC3 (Adaptation to Climate Change), and Policy CC4 (Decentralised Energy). Furthermore, it aligns with the local Sustainable Design and Construction SPD (2019) requirements of the Reading Borough Council.



The applicant decided to commit to a design approach that aligns with the principles of the energy hierarchy. The development is anticipated to first focus on the passive measures of the energy efficiency, such as energy efficient fabric.

### Fabric First

As part of a 'Fabric First' approach, the building fabric has been carefully considered and specified to meet or exceed the most relevant version of Part L (Conservation of Fuel and Power) — Part L 2013 (with 2016 Amendments) minimum requirements.

The proposed building utilises a **reinforced concrete (RC) framed structure** with **Metsec Steel Framing System (SFS)** infill walling. The external façade is clad with a layer of **calcium silicate board** and **100mm Rockwool Duoslab insulation**, ensuring robust thermal performance and fire resistance. Within the Metsec SFS framework, **100mm Knauf Omnifit insulation** is installed, providing additional thermal and acoustic benefits. Internally, the walls will be finished with **two layers of Siniat DB board**, offering enhanced durability and soundproofing. Together, this construction achieves an overall **U-value of 0.19 W/m<sup>2</sup>K**, meeting stringent energy efficiency standards.

The building envelope has been designed to achieve an **air permeability rate of 4.0 m<sup>3</sup>/h.m<sup>2</sup> at 50 Pa**, which aligns with modern requirements for airtightness, reducing heat loss and improving energy performance.

### Optimising Natural Resources

The development has been designed to make efficient use of natural resources:

- **Solar Gains:** The design optimises the use of natural daylight to reduce reliance on artificial lighting while minimising overheating risks.
- **Natural Ventilation:** Fully openable windows are the primary means of ventilation, promoting passive cooling and fresh air circulation.
- **Low-Energy Lighting:** Energy-efficient lighting systems will be used throughout the development, including external lighting where applicable.

### Building Services

In line with Policy CC4 and the Decentralised Energy aims, the potential for local energy generation has been considered.

Space heating and domestic hot water will be integrated into a centralised plant system that serves all four plots. The heating and hot water will be provided through a district



heating system, which consists of three **Hoval gas boilers** and a **combined heat and power (CHP)** unit. This system distributes heat to each plot via a network of insulated pipes.

Each plot will be equipped with a heat interface unit (HIU), which manages both the domestic hot water supply and the space heating system. Space heating will be delivered through low surface temperature radiators (LST radiators), ensuring safety and comfort across all units.

The ventilation system will consist of a **central extract system for wet rooms**, such as bathrooms and kitchens, to effectively remove moisture and improve indoor air quality. To complement this, **trickle vents** will be installed on all windows to provide background ventilation, ensuring a continuous supply of fresh air to the living spaces.

Additional building services, including electrical systems and plumbing, are designed to meet the relevant standards of efficiency, safety, and sustainability, supporting the comfort and functionality of the development.

### Cycle Storage

To encourage sustainable transport and reduce carbon emissions, additional dedicated cycle storage facilities will be provided for residents. For further details, please consult Section 10 of this report

## 3.3 COMPLIANCE WITH THE RELEVANT POLICIES AND NEXT STEPS

The strategy outlined above reflects the Applicant's commitment to energy-efficient, sustainable development while adhering to the relevant Reading Borough policies. Further design details will be finalised as the scheme progresses.

Should further clarification be necessary with regards to future conditions, this can be confirmed with the local planning authority as part of the ongoing planning process.



## 4. WATER

|                |                                                                                                                                                                                                                                                                                                                                                                                       |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Policy Drivers | <p><b>Reading Borough Local Plan (2019)</b></p> <ul style="list-style-type: none"><li>Policy EN18: Flooding and Sustainable Drainage Systems</li></ul> <p><i>also:</i></p> <ul style="list-style-type: none"><li>Policy H5: Standards for New Housing</li></ul> <p><b>Sustainable Design and Construction SPD (2019)</b></p> <p><i>Refer to Appendix 2 for detailed policies.</i></p> |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### 4.1 INTRODUCTION TO WATER MANAGEMENT

It is acknowledged that the water consumption of homes has a significant impact on not only direct operational running costs (i.e., water consumption charges), but also indirectly through additional energy usage and the heating of water for domestic use. This is, in part, reflected in SAP methodology which assumes reduced energy consumption in a dwelling should be compliant with [Approved Document Part G](#).

Efficient water use is a critical component of sustainable development, contributing to reduced operational costs and energy savings while conserving valuable water resources. The proposed development at Kenavon Drive aligns with the relevant policy aims by incorporating measures to improve water efficiency and reduce the environmental impact of water use.

### 4.2 WATER EFFICIENCY MEASURES

The Applicant will adopt a strategy to reduce water demand through the implementation of water-efficient fixtures and fittings as standard across the development. This includes measures to achieve the higher water efficiency standard under [Regulation 36\(3\)](#) of the Building Regulations, targeting a daily consumption of 105 litres per person per day.

A sample water-efficiency calculation has been carried out to estimate water use, based on typical usage patterns for taps, showers, WCs, and appliances. The indicative specifications are outlined in Table 1 below. For further details on the water-efficiency calculation please consult Appendix 3.



Table 1 – Sample water-efficiency specification for a typical apartment at Kenavon Drive, Reading

| Element                           | Performance                   |
|-----------------------------------|-------------------------------|
| Kitchen taps flow rate            | 5 Litres per minute           |
| Other basin taps flow rate        | 4 Litres per minute           |
| WCs flush volume (full/part)      | 6/3 Litres                    |
| Shower flow rate                  | 8 Litres per minute           |
| Bath volume                       | 150 Litres                    |
| Dishwasher water consumption      | 1.25 litres per place setting |
| Washing-machine water consumption | 8.17 litres per kg            |

The strategy reflects a practical and cost-effective approach to achieving water efficiency while ensuring high standards of user comfort.

### 4.3 MANAGING WATER SUPPLY

The following measures will be implemented to ensure effective water management throughout the development:

#### Water Meters

Water meters will be installed on the mains water supply to monitor and manage consumption in the additional dwellings effectively. This approach will enable both the detection of inefficiencies and leakage, helping to reduce water wastage.

#### Flow control devices

Flow control devices that regulate the supply of water to each WC area/facility will be considered in order to reduce water wastage.

Examples of flow control devices are listed below:

- A time controller, i.e., an automatic time switch device to switch off the water supply after a predetermined interval.



- A programmed time controller, i.e., an automatic time switch device to switch water on and/or off at pre-determined times.
- A volume controller, i.e., an automatic control device to turn off the water supply once the maximum pre-set volume is reached.
- A presence detector and controller, i.e., an automatic device detecting occupancy or movement in an area to switch water on and turn it off when the presence is removed.
- Have the mains water supply — and any other water-consuming plant or building areas that are consuming 10% or more of the building's total water demand — metered.
- Have a leak detection mechanism in place capable of identifying a major leak on the mains-water supply within the building.

These devices will ensure efficient water use for the additional dwellings.

#### **4.4 RAINWATER AND GREY WATER RECYCLING**

The focus will remain on achieving water efficiency through the installation of low-flow fixtures and fittings, which provide a proven and cost-effective method of reducing potable water consumption due to practical constraints of this form of and scale of development.

#### **4.5 CONSTRUCTION WATER MANAGEMENT**

During the construction phase, water consumption will be carefully monitored. The main contractor will:

- Set targets for on-site water use.
- Implement measures to minimise water consumption from site activities wherever feasible.
- Include leak detection mechanisms to identify and address any significant water losses promptly.



#### **4.6 MINIMISING FLOOD RISK**

The development benefits from existing drainage solutions that have already been installed, effectively minimising vulnerability to flooding. Due to the scale of this proposal, no further measures are being proposed.

Please refer to Section 6 of this report for additional details on the flood risk aspects.

#### **4.7 COMPLIANCE WITH THE RELEVANT POLICIES AND NEXT STEPS**

The water management strategy outlined above demonstrates the Applicant's commitment to improving water efficiency, reducing potable water consumption, and aligning with the aims of Reading's Sustainable Design and Construction policy.



## 5. MATERIALS

|                |                                                                                                                                                                                                                                                                                                                           |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Policy Drivers | <p><b>Reading Borough Local Plan (2019)</b></p> <ul style="list-style-type: none"><li>▪ Policy CC2: Sustainable Design and Construction</li><li>▪ Policy CC7: Design and the Public Realm</li></ul> <p><b>Sustainable Design and Construction SPD (2019)</b></p> <p><i>Refer to Appendix 2 for detailed policies.</i></p> |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### 5.1 INTRODUCTION TO MATERIALS

The selection and procurement of construction materials play a critical role in ensuring the long-term durability, environmental sustainability, and alignment with local character. The approach adopted for the Kenavon Drive development reflects the need to minimise environmental impact, promote resource efficiency, and consider embodied energy throughout the construction process.

### 5.2 SUSTAINABLE PROCUREMENT OF MATERIALS

The Applicant is committed to an environmentally responsible approach to material procurement and supply chain management. The following principles will guide the material strategy for the development:

#### – Retaining Local Character

Where feasible, materials will be selected to complement the local architectural style and character, ensuring the development integrates sensitively with the existing urban environment.

#### – Minimising Environmental Impact

The use of materials with a low environmental impact will be prioritised, where possible. This includes:

- ✓ Selecting materials with a lower embodied carbon, taking life cycle impacts into account.



- ✓ Preferring products with high recycled content, such as incorporating Pulverised Fuel Ash (PFA) in concrete.
- ✓ Sourcing timber through sustainable certification schemes, such as the Forest Stewardship Council (FSC) or Programme for the Endorsement of Forest Certification (PEFC).

– **Ensuring Durability and Longevity**

Materials will be chosen for their durability and robustness, reducing the need for frequent maintenance or replacement. This approach ensures a long life span and minimises resource consumption over the building's operational phase.

– **Healthy and Sustainable Materials**

The Applicant will seek to avoid the use of materials with harmful environmental or health implications. This includes specifying low or zero Volatile Organic Compounds (VOCs) and formaldehyde-free products to safeguard occupant health and promote high indoor air quality.

– **Circular Economy Considerations**

Opportunities to incorporate reclaimed and recycled materials will be reviewed where practical, supporting the transition to a circular economy.

The Applicant is further committed to:

- Completing a Pre-Demolition Audit (where needed) to identify opportunities for material reuse and recycling during the construction phase.
- Developing a Resource Management Plan to optimise material sourcing and reduce construction waste.
- Implementing Considerate Construction Principles to ensure responsible material use and environmental management on-site.

This strategy reflects the Applicant's commitment to delivering a development that respects local character, ensures material longevity, and reduces its overall environmental footprint.



## 6. SURFACE WATER RUN-OFF

|                |                                                                                                                                                                                                                                                                                                                                   |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Policy Drivers | <p><b>Reading Borough Local Plan (2019)</b></p> <ul style="list-style-type: none"><li>▪ Policy CC3: Adaptation to Climate Change</li><li>▪ Policy EN18: Flooding and Sustainable Drainage Systems</li></ul> <p><b>Sustainable Design and Construction SPD (2019)</b></p> <p><i>Refer to Appendix 2 for detailed policies.</i></p> |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### 6.1 INTRODUCTION SURFACE WATER RUN-OFF

Reading Borough is a highly urbanised area situated along key watercourses, including the River Thames and the River Kennet, with additional smaller watercourses such as the Holy Brook and Foudry Brook. Given its geography, the Borough is particularly vulnerable to flooding from surface water runoff and rivers.

Historically, surface water flooding has been a notable issue in Reading, contributing to around two-thirds of the flooding experienced during the 2007 floods. As the risks of climate change intensify, managing surface water runoff and mitigating flood risk are increasingly critical to ensure developments are resilient and sustainable.

To address these challenges, developments should incorporate flood mitigation measures, alongside sustainable drainage solutions, in line with national and local policies. Strategic Flood Risk Assessments (SFRA) and the Surface Water Management Plan (SWMP) provide valuable guidance on managing these risks while promoting climate resilience.

The following section outlines the flood risk considerations for the Huntley Wharf development and the measures implemented to mitigate flooding and pollution risks.

### 6.2 FLOOD RISK MANAGEMENT

The site has been assessed for its exposure to flooding. Measures to mitigate flood risk were approved under application 170509 and have already been implemented. Due to the scale of this proposal, no additional measures are proposed.



## Historical flooding

The Environment Agency's Historic Flood Map indicates that the site has previously experienced flooding, primarily due to its proximity to the River Kennet.

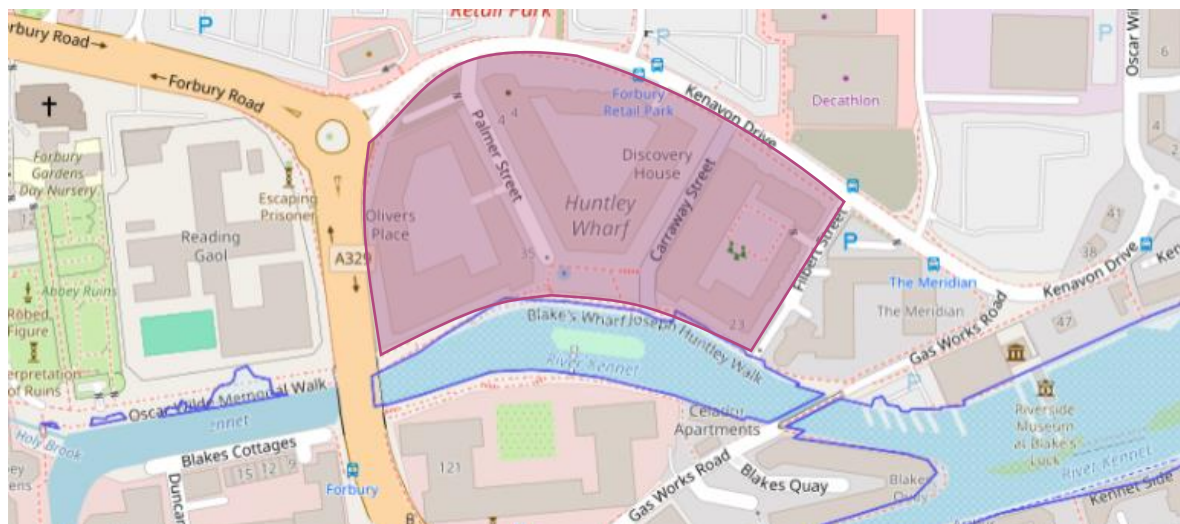


Figure 4 – The EA Historic Flood Map for Kenavon Drive, Reading, RG1, indicating that the site at Huntley Wharf has experienced historical flooding  
[Source: [Historic Flood Map](#), 12/03/2025]

## Fluvial and tidal flood risk

The *Check your long term flood risk* government service has been consulted. Some parts of the site are within the **medium or high probability of fluvial and tidal flooding** zone, having a less than 1 in 1,000 annual probabilities of flooding from rivers or the sea.

The fluvial and tidal flooding map is presented below.

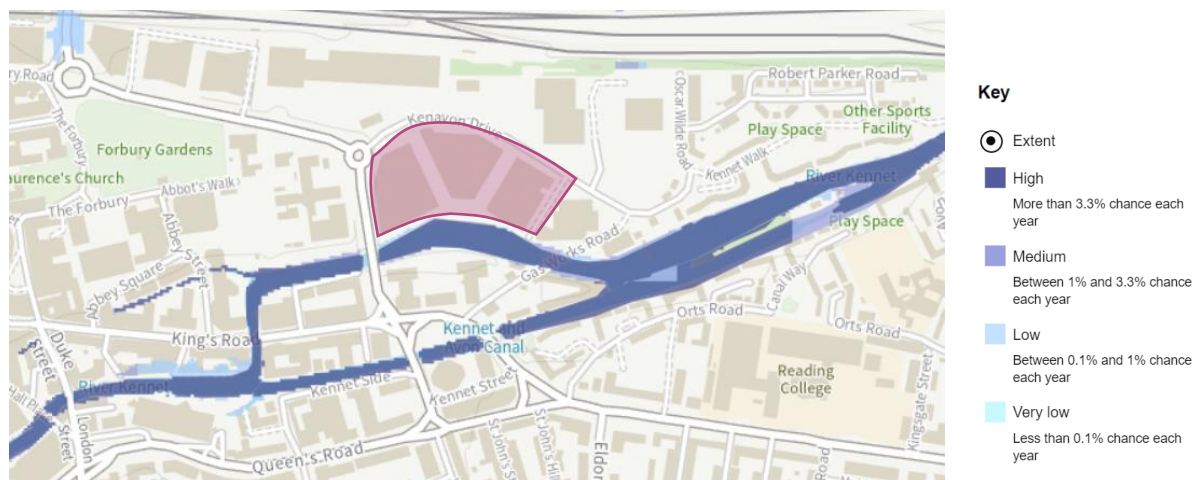


Figure 5 – The risk of flooding from rivers and the sea for Kenavon Drive, Reading, RG1  
[Source: <https://check-long-term-flood-risk.service.gov.uk>, 12/03/2025]



### Risk from surface water flooding

The *Check your long term flood risk* government service has been consulted. The development is within the **low or medium risk of surface water flooding**. Consideration will be given within the FRA and Drainage Strategy to the management of the risk from surface water flooding. The surface water map is presented below.

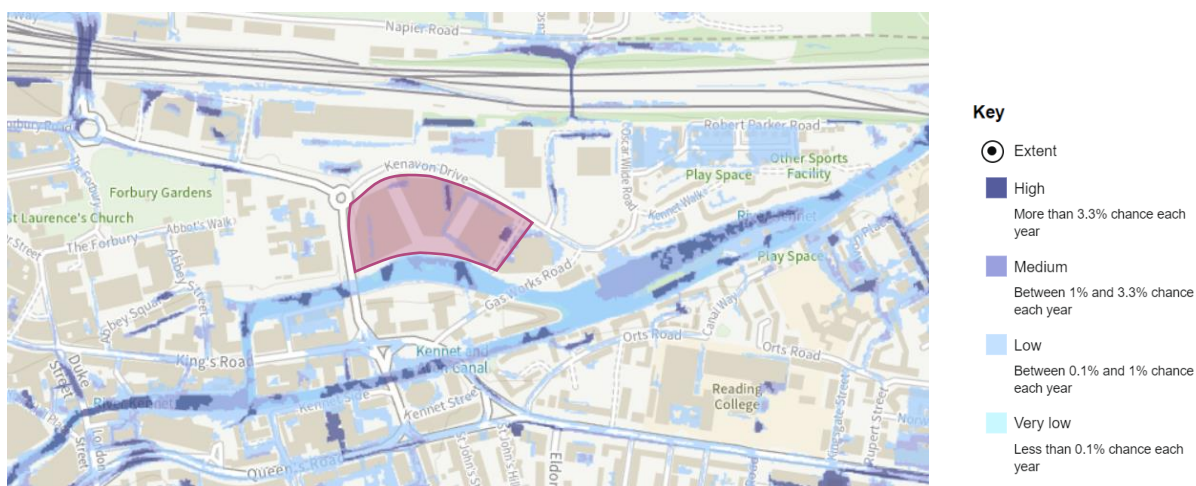


Figure 6 – The risk of flooding from surface water for Kenavon Drive, Reading, RG1  
[Source: <https://check-long-term-flood-risk.service.gov.uk>, 12/03/2025]

### Groundwater and infrastructure flooding

Flooding from groundwater and reservoirs has been deemed unlikely in this area. Additionally, there is no evidence of sewer flooding within the immediate vicinity of the site, and the risk of flooding from drainage infrastructure is considered low.

## 6.3 SUSTAINABLE URBAN DRAINAGE

The Applicant's drainage strategy will ensure that appropriate measures for the management of surface water run-off and flood risk are considered and incorporated within the scheme. The following should be included within the Development:

- SUDs will be designed to contain the 1 in 100 (1%) rainfall event with an increase in peak rainfall intensity of 40% to allow for the currently predicted effects of climate change.
- A drainage strategy will consider the increase in surface water runoff, and the measures required to control and convey this to an appropriate and available discharge receptor. In terms of the discharge receptor, the sustainable drainage hierarchy will be followed, as required by local and national guidance.



- In order to regulate the surface water runoff rate from the site to the sewer, attenuation features will be included in the surface water drainage strategy for the proposed development.
- These attenuation features will include a combination of subsurface tanks, granular layers and permeable paving as well as landscaped attenuation features, such as attenuation basins.

#### **6.4 POLICIES CC3 AND EN18 COMPLIANCE**

The development will aim to comply with Reading Borough Council's Policy EN18, ensuring appropriate flood risk management and pollution control.

The existing drainage strategy and Flood Risk Assessment (FRA) for the site will be reviewed to confirm their applicability to the additional four residential units. It is anticipated that no significant changes to surface water runoff or flood risk will occur as a result of this development. Any updates or clarifications required will be addressed in line with local planning requirements.

The proposed approach reflects a commitment to addressing flood risk and environmental impacts while ensuring resilience to future climate conditions.



## 7. WASTE

|                |                                                                                                                                                                                                                                                                                                                 |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Policy Drivers | <p><b>Reading Borough Local Plan (2019)</b></p> <ul style="list-style-type: none"><li>▪ Policy CC5: Waste Minimisation and Storage</li><li>▪ Policy H8: Residential Conversions</li></ul> <p><b>Sustainable Design and Construction SPD (2019)</b></p> <p><i>Refer to Appendix 2 for detailed policies.</i></p> |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### 7.1 INTRODUCTION TO WASTE

The management of waste plays a vital role in reducing the environmental impact of developments and supporting the move toward a circular economy. Around a third of the UK's total waste originates from the construction and demolition sectors, highlighting the importance of sustainable waste management practices.

The Applicant is committed to incorporating measures that will minimise waste generation, maximise re-use and recycling, and ensure responsible management of waste during both the construction phase and the operational lifetime of the Kenavon Drive development.

### 7.2 SUSTAINABLE WASTE MANAGEMENT

Waste management for the Kenavon Drive development will adhere to the principles of the waste hierarchy, which prioritises:

- Prevention.
- Preparing for re-use.
- Recycling.
- Other recovery.
- Disposal.

By focusing on prevention, minimisation, and re-use of materials, the Applicant aims to reduce the volume of waste sent to landfill, while promoting recycling and recovery wherever feasible.



### 7.3 DOMESTIC WASTE

The Applicant will implement measures to facilitate effective waste storage, recycling, and collection for future residents, ensuring compliance with local authority waste management policies.

- **Communal Refuse and Recycling Facilities:**

Dedicated refuse and recycling storage areas will be provided for the four residential units. These facilities will be designed to encourage the separation of recyclable and non-recyclable waste. The specific locations of these facilities are highlighted within the *Design and Access Statement - Middle Block 4 Dwellings* (January 2025).

The proposed waste strategy and management plan for the development align with those approved under the consented scheme.

Waste storage requirements have been reviewed and calculated using the same parameters as the consented scheme, as follows:

- **General Waste:** Collected fortnightly, with one 1,100-litre Eurobin provided for every five flats.
- **Recycling:** Collected fortnightly, with one 1,100-litre Eurobin provided for every five flats.

An assessment of the additional four flats has been conducted to determine their impact on the waste storage needs. The analysis confirms that the existing provision remains adequate to handle the increased waste demand.

- **Resident Guidance:**

Information will be provided to new residents on waste separation and recycling, including details of the local authority recycling services and nearby recycling centres to encourage sustainable waste disposal practices.

### 7.4 CONSTRUCTION WASTE

Berkeley Homes (Western) Limited will implement guidance on sustainable waste management.



As a primary objective, and in accordance with the waste hierarchy, the Applicant will seek to prevent waste in the first instance. This will be achieved through a Site Waste Management Plan that begins with the planning and design process and filters down through the management of the construction process and across the lifetime of the Development.

During the construction phase, the Applicant will adopt measures in line with best practice and relevant sustainability guidance to ensure that construction and demolition waste is minimised and appropriately managed.

– **Site Waste Management Plan (SWMP):**

A Site Waste Management Plan will be implemented to identify and control waste generation throughout the design and construction process. The plan will outline actions for:

- Preventing and minimising waste production.
- Maximising the re-use and recycling of materials.
- Ensuring proper segregation of waste into defined groups for re-use or disposal through licensed waste contractors.

– **Minimising Waste to Landfill:**

The Applicant will actively monitor construction waste and aim to divert as much waste as possible from landfill through:

- On-site sorting and segregation of materials.
- Recycling and re-use of materials such as concrete, bricks, and metals.
- Responsible disposal of any remaining waste streams.

– **Re-use of Materials:**

Opportunities to re-use materials generated on-site will be explored, such as crushed aggregate for sub-base construction or timber for temporary works. Where feasible, materials with high recycled content and low environmental impact will be prioritised.

By adopting these measures, the Applicant aims to minimise construction waste, reduce reliance on landfill, and ensure that the development is delivered in a sustainable and environmentally responsible manner.



## **7.5 POLICIES H8 AND CC5 COMPLIANCE**

The proposed waste management strategy for Kenavon Drive prioritises:

- The provision of effective refuse and recycling storage for residents,
- Clear guidance on domestic recycling practices, and
- Implementation of a Site Waste Management Plan to minimise construction and demolition waste.

These measures will ensure compliance with Reading Borough Council's policy objectives, reduce environmental impacts, and promote a sustainable approach to waste management throughout the development's lifecycle.



## 8. POLLUTION

|                |                                                                                                                                                                                                                                                                                                                                                         |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Policy Drivers | <p><b>Reading Borough Local Plan (2019)</b></p> <ul style="list-style-type: none"><li>▪ Policy EN15: Air Quality</li><li>▪ Policy EN16: Pollution and Water Resources</li><li>▪ Policy EN17: Noise Generating Equipment</li></ul> <p><b>Sustainable Design and Construction SPD (2019)</b></p> <p><i>Refer to Appendix 2 for detailed policies.</i></p> |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### 8.1 INTRODUCTION TO POLLUTION, AIR QUALITY AND NOISE

The Applicant will evaluate the Proposal's impact on local air quality and noise, implementing design measures to mitigate negative effects and enhance positive outcomes where possible. An air quality assessment and acoustic report will be provided, with any necessary mitigation measures incorporated into the development.

Additionally, the Applicant will ensure that all contractors adhere to sustainability guidelines during construction to minimise potential impacts such as air pollution, noise, traffic congestion, dust, and contamination of land or water.

### 8.2 AIR QUALITY

The Applicant is committed to mitigating the impact of the development on local air quality during both the construction phase and operation.

#### – Construction Phase:

- Air quality impacts, including dust and vehicle emissions, will be carefully managed in line with best practice guidance.
- Contractors will adhere to strict sustainability guidelines to minimise emissions and mitigate air quality impacts on the surrounding area.
- A Construction Environmental Management Plan (CEMP) will be implemented to monitor and control dust generation, including dust suppression techniques such as water spraying and on-site vehicle management.



– **Operational Phase:**

- The development's energy systems will comply with relevant NO<sub>x</sub> emission standards, with low-emission heating systems.
- Increased road traffic associated with the development will be assessed to ensure impacts remain neutral.
- An air quality assessment will be carried out to demonstrate that the impacts of the development are not significant, with mitigation measures introduced if necessary.

### 8.3 NOISE POLLUTION

The Applicant will undertake a noise assessment to evaluate the potential impacts of noise from the development, including construction activities and operational sources such as plant equipment or external traffic.

– **Mitigation Measures:**

- To reduce noise pollution, the following measures will be considered:
- Use of low-noise plant and machinery during construction.
- Implementation of noise barriers or acoustic insulation, where required.
- Ensuring construction activities adhere to restricted working hours to minimise disruption to neighbouring properties.
- Use of appropriate glazing and insulation to protect residential areas from external noise sources.

The Applicant is committed to ensuring the development adheres to best practice noise control measures while providing comfortable and quiet environments for future occupants and the wider community.

### 8.4 LIGHT POLLUTION

The Applicant recognises the importance of minimising light pollution while ensuring that public areas remain well-lit and secure. The following measures will be adopted:

– **Energy-Efficient Lighting:**

External lighting will be designed using energy-efficient fittings to reduce unnecessary energy use and emissions.



– **Lighting Design:**

- Lights will be positioned and shielded to direct illumination downwards and avoid unnecessary light spill into the surrounding environment.
- Timers, motion sensors, and dimmers will be employed to limit lighting operation to when it is required.
- Uplighting will be avoided or shielded where possible to reduce glare and sky glow.

– **Environmental Sensitivity:**

Careful consideration will be given to minimise the impact of lighting on wildlife habitats and adjacent properties. Light will be directed to prevent disturbance to sensitive ecological areas and residential settings.

## **8.5 POLICIES EN15, EN16 AND EN17 COMPLIANCE**

The Applicant will ensure that a holistic approach to pollution mitigation is adopted across all stages of the project, including:

- Implementing a Construction Environmental Management Plan (CEMP) to reduce pollution from dust, noise, and construction traffic.
- Reducing global warming potential (GWP) through careful selection of building materials and insulation products that meet stringent sustainability standards.
- Monitoring and managing water runoff to prevent contamination of ground and surface water.

By incorporating these measures, the Applicant aims to deliver a development that minimises its impact on the environment, complies with Reading Borough Council's policies, and supports a cleaner, quieter, and more sustainable urban environment.



## 9. HEALTH AND WELL-BEING

### Policy Drivers

#### Reading Borough Local Plan (2019)

- Policy CC7: Design and the Public Realm
- Policy CC8: Safeguarding Amenity
- Policy H8: Residential Conversions
- Policy H10: Private and Communal Outdoor Space

#### Sustainable Design and Construction SPD (2019)

Refer to Appendix 2 for detailed policies.

### 9.1 INTRODUCTION

The proposed development at Kenavon Drive has been carefully designed to enhance the quality of life for its future occupants by incorporating measures to maximise natural light, reduce noise impacts, provide private outdoor spaces, and ensure adaptability to meet changing needs over time.

### 9.2 NATURAL LIGHTING

The layout and orientation of the residential units have been designed to maximise natural daylight, improving indoor comfort and reducing reliance on artificial lighting. The proposed design incorporates the following:

- **Window Placement:** Generously sized windows have been strategically positioned to optimise daylight reaching key living spaces.

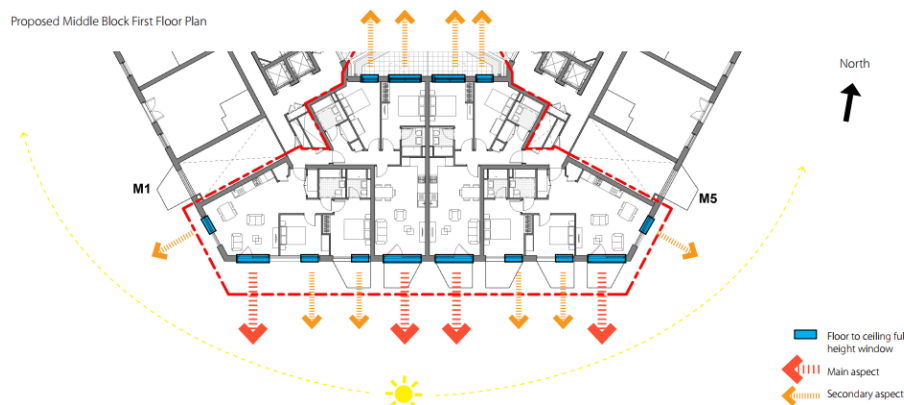


Figure 7 – The proposed layout that optimises the levels of daylight and sunlight.  
[Source: Kenavon Drive, Reading, Design & Access Statement - Middle Block Change of Use, KD-PRP-MID-XX-RP-A-0001, P0\_December 2024, provided to Energist UK by Berkeley Homes (Western) Limited]



- **Dual Aspect Units:** Where possible, units have been designed with dual aspect layouts, enhancing natural lighting and cross-ventilation.
- **Private Amenity Spaces:** The provision of private outdoor spaces (Figure 8) will contribute to improved daylight exposure while offering additional recreational areas.

These measures are aligned with Building Regulations Part O and ensure that the internal environments are both comfortable and energy-efficient.

### 9.3 NOISE MITIGATION

The development's design seeks to reduce noise impacts through thoughtful layout and high-quality construction methods. Key strategies include:

- **Enhanced Sound Insulation:** Internal partitions and floors will be constructed to meet or exceed the minimum requirements of Approved Document E, ensuring noise between dwellings is minimised.
- **Window Specifications:** The glazing systems will be designed to mitigate external noise while maintaining high levels of natural light.
- **Optimised Layout:** The positioning of habitable rooms has been carefully considered to reduce exposure to noise from external sources, ensuring a quiet and comfortable internal environment.

### 9.4 PRIVATE OUTDOOR SPACE

Private outdoor spaces have been incorporated into the development to enhance occupant well-being and provide much-needed amenity space for future residents. Figure 7 illustrates the proposed private amenity space for the two residential dwellings.

These spaces will be:

- **Accessible:** Directly connected to the residential units for ease of use.
- **Secure and Functional:** Providing a safe and usable environment for recreation and relaxation.

The inclusion of private outdoor spaces aligns with Reading Borough Council's aim to improve the quality of life for occupants by offering accessible and practical open areas.

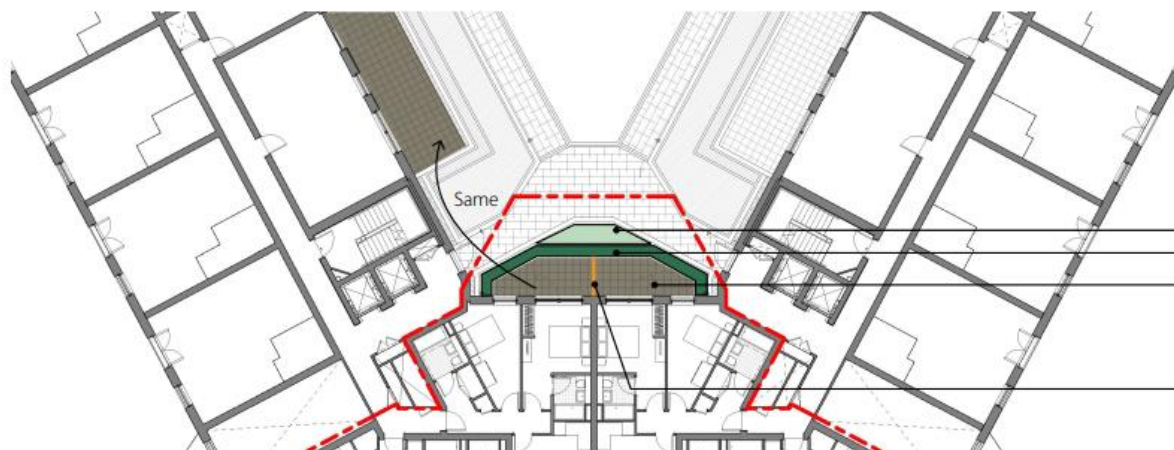


Figure 8 – The proposed residential layout of the first floor at Kenavon Drive, Reading, RG1.  
[Source: Kenavon Drive, Reading, Design & Access Statement - Middle Block Change of Use, KD-PRP-MID-XX-RP-A-0001, P0\_December 2024, provided to Energist UK by Berkeley Homes (Western) Limited]

## 9.5 ADAPTABLE LAYOUTS

The proposed residential units have been designed to accommodate changing needs, ensuring flexibility for future occupants. Adaptable layouts will:

- Allow for internal reconfigurations where feasible to support evolving household requirements.
- Incorporate features that align with the principles of Lifetime Homes, ensuring long-term usability for a diverse range of occupants, including families, older people, and individuals with mobility needs.

By prioritising adaptability, the development supports sustainable living and promotes longevity in residential use.

## 9.6 COMPLIANCE WITH THE RELEVANT POLICIES

The Kenavon Drive development integrates thoughtful design measures to improve daylighting, reduce noise impacts, and provide high-quality private outdoor spaces. The adaptable layouts further ensure that the dwellings meet the evolving needs of future occupants, supporting both comfort and well-being in line with Reading Borough Council's policy objectives.



## 10. TRANSPORT

|                |                                                                                                                                                                                                                                                                                                                                                                                                |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Policy Drivers | <p><b>Reading Borough Local Plan (2019)</b></p> <ul style="list-style-type: none"> <li>Policy TR1: Achieving the Transport Strategy</li> <li>Policy TR4: Cycle Routes and Facilities</li> <li>Policy TR5: Car and Cycle Parking and Electric Vehicle Charging</li> </ul> <p><b>Sustainable Design and Construction SPD (2019)</b></p> <p><i>Refer to Appendix 2 for detailed policies.</i></p> |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### 10.1 TRANSPORT, CYCLING, WALKING AND SECURE PARKING

The development will contribute to the objectives of the Local Transport Plan by encouraging sustainable travel and improving accessibility. Measures to promote walking, cycling, and the use of public transport will be considered where practical, aligning with Policy TR1. Safe and convenient routes to nearby facilities, services, and public transport networks will be explored to ensure accessibility and connectivity for all residents.

Car and cycle parking provision will comply with Policy TR5 requirements. Secure and accessible cycle parking will be provided to encourage sustainable travel, designed to:

- **Meet demand:** Accommodating the needs of local residents.
- **Ensure security:** Providing either secure indoor storage or well-lit and visible outdoor spaces.
- **Maximise convenience:** Locating parking close to building entrances for ease of use.

Given the small scale of the development, the inclusion of additional electric vehicle charging points will be assessed for feasibility. Policy TR5 requires that 10% of communal parking spaces are equipped with active charging points, and this will be considered within the context of the site's existing infrastructure.

In line with Policy TR3, access to the development will adhere to adopted highway standards to ensure the safety of all users, including pedestrians and cyclists. While the impact on congestion and the transport network is expected to be minimal, measures have been explored to mitigate any potential effects.



Opportunities to enhance cycling infrastructure have been reviewed, aligning with Policy TR4 and the approach outlined in the consented scheme. The updated Design and Access Statement (DAS) confirms that the existing cycle parking allocation is sufficient to meet the needs of the proposed four additional flats. This assessment is based on the methodology outlined in the Transport Assessment Addendum for the Section 73 application.

Given the small scale of the proposal, which involves adding four dwellings to the existing scheme, no changes to the ground floor plan or additional cycle parking provisions are required. Instead, the development will continue to integrate with the existing cycle routes as outlined in the DAS.



## 11. MANAGEMENT

### Policy Drivers

#### Reading Borough Local Plan (2019)

- Policy CC2: Sustainable Design and Construction
- Policy CC5: Waste Minimisation and Storage
- Policy CC7: Design and the Public Realm
- Policy CC8: Safeguarding Amenity
- Policy EN15: Air Quality
- Policy EN16: Pollution and Water Resources
- Policy EN18: Flooding and Sustainable Drainage Systems
- Policy H8: Residential Conversions
- Policy H10: Private and Communal Outdoor Space

*also:*

- Policy H5: Standards for New Housing

#### Sustainable Design and Construction SPD (2019)

*Refer to Appendix 2 for detailed policies.*

### 11.1 INTRODUCTION TO MANAGEMENT

The management of construction activities and the operation of the site at Kenavon Drive will prioritise minimising environmental impacts and promoting safety and security for future residents. These measures align with local policy requirements, listed above, as outlined in the Reading Local Plan (2019).

### 11.2 ENVIRONMENTALLY AND SOCIALLY CONSIDERATE CONSTRUCTION

The Applicant is committed to delivering a development that mitigates environmental impacts throughout the construction process by implementing industry best practices. The following measures have been applied:

- **Sustainable Construction Management:** A Construction Environmental Management Plan (CEMP) has been prepared, detailing site management protocols to mitigate dust, noise, vibration, and light pollution.



- **Waste Minimisation:** A Site Waste Management Plan (SWMP) has been implemented to reduce, reuse, and recycle construction and demolition waste in line with the waste hierarchy.
- **Resource Management:** On-site water and energy consumption during construction are being monitored and reduced through efficient practices.
- **Contractor Standards:** All contractors and subcontractors adhere to Considerate Constructors Scheme (CCS) principles to promote environmentally responsible construction practices.
- **Air and Noise Pollution Controls:** Measures such as dust suppression systems, noise barriers, and work-hour restrictions have been implemented to minimise disruption to the local community.
- **Traffic and Logistics Management:** A Construction Logistics Plan (CLP) has been developed to manage deliveries, reduce peak-hour traffic congestion, and encourage the use of cleaner vehicles.

These approaches ensure that the site is be managed in a manner that limits environmental harm, reduces disruption to the surrounding area, and maintains strong social responsibility throughout the development process.

### 11.3 SAFE AND SECURE DESIGN

The design of the Kenavon Drive development has considered safety and security to create an environment that fosters a sense of well-being for residents and visitors. The following principles have been incorporated into the scheme:

- **Natural Surveillance:** The layout of residential units and shared spaces promotes visibility, reducing opportunities for anti-social behaviour.
- **Lighting Strategy:** Energy-efficient external lighting will be provided in key communal and access areas, ensuring spaces are well-lit and secure without contributing to light pollution.
- **Secure Access and Boundaries:** Entry points to the residential units and private amenity spaces were designed to ensure secure access, providing privacy while maintaining permeability through the site.



- **Private Amenity Spaces:** As indicated in Figure 7 (section 9.4), dedicated private amenity areas have been incorporated into the design, providing secure outdoor spaces for future residents.
- **Cycle and Refuse Storage:** Secure and well-lit facilities for cycle parking and refuse storage will be provided to support safe and convenient use for residents.

## 11.4 COMPLIANCE WITH THE RELEVANT POLICIES

The proposed measures align with the relevant Reading Local Plan (2019) policies and demonstrate the Applicant's commitment to delivering a high-quality development that prioritises safety, security, and environmental responsibility.

The construction and operational phases of the development will adhere to robust environmental and management strategies to create a safe, considerate, and sustainable living environment for future occupants.



## 12. ECOLOGY

|                |                                                                                                                                                                                                                                                                                                                      |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Policy Drivers | <p><b>Reading Borough Local Plan (2019)</b></p> <ul style="list-style-type: none"> <li>Policy EN12: Biodiversity and Green Network</li> <li>Policy EN14: Trees, Hedges and Woodland</li> </ul> <p><b>Sustainable Design and Construction SPD (2019)</b></p> <p><i>Refer to Appendix 2 for detailed policies.</i></p> |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### 12.1 INTRODUCTION

The protection and enhancement of biodiversity, wildlife habitats, and natural features remain a core focus for the updated Kenavon Drive development. In line with Reading Borough Local Plan policies, the Applicant remains committed to promoting ecological sustainability while accommodating the proposed additional dwellings.

### 12.2 RETENTION AND PROTECTION OF EXISTING FEATURES

The site, predominantly urban in nature, has been reviewed for its ecological value, with consideration given to any existing natural features or habitats within or adjacent to the site boundary. Given the site's characteristics:

- Existing vegetation and features: The provided drawings (please refer to Figure 9) illustrate the retention and enhancement of planting beds and hedges within the site. These features will be preserved where possible to maintain continuity of local biodiversity and provide soft landscaping elements.

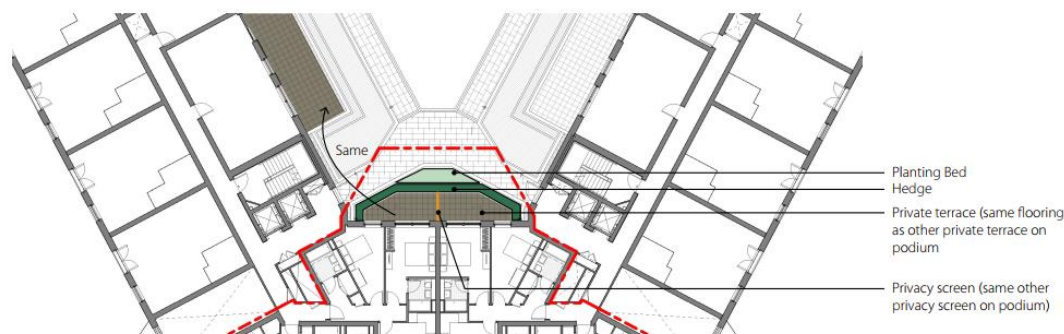


Figure 9 - The proposed landscape features at Kenavon Drive  
[Source: Kenavon Drive, Reading, Design & Access Statement - Middle Block Change of Use, KD-PRP-MID-XX-RP-A-0001, P0\_December 2024, provided to Energist UK by Berkeley Homes (Western) Limited]



- Watercourse safeguarding: Measures have been implemented to protect the adjacent River Kennet from any adverse impacts during construction and operation, ensuring compliance with *Policy EN18: Flooding and Sustainable Drainage*.

### 12.3 ENHANCEMENTS TO WILDLIFE HABITATS

The development incorporated measures to protect water quality and maintain the ecological integrity of nearby rivers, such as avoiding contamination during construction. To support biodiversity and enhance the ecological value of the site, proportionate enhancements will be considered, including:

- **Soft landscaping:** The inclusion of planting beds and hedges in amenity spaces is planned, as shown in the updated drawing. These will incorporate native and pollinator-friendly species to provide habitat opportunities for urban wildlife.
- **Private amenity areas:** The design of private terraces will include elements like hedging and privacy screens that contribute to the visual appeal and ecological integration of the development.
- **Habitat features:** The potential for installing bird and bat boxes will be explored to encourage nesting and roosting opportunities for local species, enhancing biodiversity within the site. This will be considered within the context of the site's existing landscape design.
- **Sustainable infrastructure:** The design will aim to integrate green and blue infrastructure principles, including natural drainage solutions such as permeable surfaces, if feasible.

### 12.4 LONG-TERM MANAGEMENT

The Applicant is committed to the long-term viability of the ecological features incorporated into the development:

- Maintenance plans will ensure landscaping and green features remain effective and sustainable.
- The design prioritises features that balance ecological benefits with maintenance requirements.

These measures demonstrate a proportionate and thoughtful approach to enhancing biodiversity, reflecting the urban nature and scale of the project. The development seeks



to align with local policy goals while contributing meaningfully to the ecological value of the site.



## 13. CONCLUSIONS

### ENERGY / CO<sub>2</sub>:

The Applicant is committed to delivering a sustainable and energy-efficient development that aligns with the energy hierarchy. A 'Fabric First' approach will reduce energy demand through enhanced building fabric, including high-quality insulation and optimised glazing. Additionally, CHP will be incorporated for space heating and domestic hot water. Overheating risks will be managed using passive design measures, including natural ventilation and appropriately specified glazing to ensure compliance with current standards.

### WATER:

Water efficiency is prioritised across the development through the inclusion of water-saving fixtures and fittings, achieving a consumption rate of 105 litres per person per day. Flow-control devices and water meters on the mains supply will be installed to monitor and reduce water usage.

### MATERIALS:

The Applicant has implemented a sustainable approach to materials procurement, prioritising those with low embodied carbon and environmental impact. Materials will be responsibly sourced, with timber certified by schemes such as FSC or PEFC. The development considers durability and robustness, using materials that are long-lasting, recycled, or reclaimed where possible. Efforts have been made to minimise the use of materials with high Global Warming Potential (GWP).

### SURFACE WATER RUN-OFF:

A Flood Risk Assessment (FRA) and Drainage Strategy were reviewed to address the site's vulnerability to fluvial, tidal, and surface water flooding. The drainage design will incorporate measures to manage surface water run-off if needed, including attenuation features such as permeable paving, subsurface storage, and landscaped areas. The strategy will be designed to accommodate the 1 in 100-year rainfall event, with an additional 40% allowance for climate change.

### WASTE:

A Site Waste Management Plan has been prepared to ensure waste minimisation during the construction process. This includes measures to prevent, reuse, and recycle



construction and demolition waste, diverting material from landfill wherever possible. Dedicated refuse and recycling storage facilities will be provided for future occupants to encourage responsible waste disposal. Operational waste segregation will be supported through accessible and clearly defined facilities.

#### **POLLUTION:**

The development includes measures to minimise pollution impacts:

- **Air Quality:** Compliance with NOx emissions standards for energy systems and mitigation of construction-related dust and emissions.
- **Noise:** Noise pollution is managed through design measures and adherence to best practice construction management.
- **Light:** External lighting will be energy-efficient, carefully positioned, and equipped with timers and sensors to prevent glare, light trespass, and sky glow, while ensuring safety and security.

#### **HEALTH AND WELL-BEING:**

The development promotes occupant comfort and well-being through the following measures:

- Maximising natural light with well-placed windows.
- Ensuring adequate ventilation through natural means to improve internal air quality and reduce overheating risks.
- Incorporating private outdoor amenity space for the residential units, as shown in the site layout.
- Delivering high-quality internal finishes and sound insulation to minimise disturbances.
- The design also ensures adaptability to meet the needs of future occupants, supporting long-term functionality.

#### **TRANSPORT:**

The development encourages sustainable and low-carbon travel by providing secure cycle parking in accordance with policy standards and ensuring connectivity to nearby walking and cycling routes. The existing cycle parking allocation has been assessed and confirmed as sufficient to accommodate the additional dwellings, requiring no changes to the ground floor plan. While the small scale of the proposal limits further enhancements to



infrastructure, opportunities to integrate with existing cycling networks have been reviewed. The feasibility of incorporating additional electric vehicle charging points has also been assessed in line with local policy requirements.

#### **MANAGEMENT:**

The construction phase is managed in an environmentally and socially considerate manner, adhering to best practice principles to mitigate environmental impacts such as dust, noise, and pollution. The Applicant implemented measures to monitor and manage on-site activities, ensuring compliance with relevant sustainability guidelines. Post-completion, the design will incorporate measures to ensure residents feel safe and secure, including well-lit spaces, secure entry points, and appropriately located amenities.

#### **ECOLOGY:**

The Applicant is committed to retaining and enhancing the ecological value of the site wherever feasible. Landscaping will incorporate planting beds and hedges with native and pollinator-friendly species to support local biodiversity. Additionally, measures to protect the adjacent River Kennet and other natural features have been implemented, ensuring the preservation and enhancement of local wildlife habitats.

**Furthermore, a BREEAM Domestic Refurbishment 2014 assessment for residential conversions will be carried out to meet a 'Very Good' rating. Energist UK has conducted a Pre-Assessment, which confirms that the development is anticipated to meet the minimum standard credits required for a BREEAM 'Very Good' rating, with a potential overall score of 62.5%.**

**To support this objective, specialist consultant reports will be prepared where necessary, complementing the Sustainability Statement by addressing key aspects of sustainable development, including energy performance, sustainable materials, responsible waste management, flood risk and sustainable drainage, air quality, acoustics, security, ecology, and tree planting.**



## APPENDICES

### APPENDIX 1: LIST OF ABBREVIATIONS

|                  |                                                               |
|------------------|---------------------------------------------------------------|
| <b>AD L 2021</b> | <i>Approved Document Part L of Buildings Regulations 2021</i> |
| <b>ASHP</b>      | <i>Air Source Heat Pump</i>                                   |
| <b>BER</b>       | <i>Building Emission Rate</i>                                 |
| <b>BRE</b>       | <i>Building Research Establishment</i>                        |
| <b>CIBSE</b>     | <i>Chartered Institution of Building Services Engineers</i>   |
| <b>COP</b>       | <i>Coefficient of Performance</i>                             |
| <b>DER</b>       | <i>Dwelling Emission Rate</i>                                 |
| <b>DHN</b>       | <i>District Heat Network</i>                                  |
| <b>DHW</b>       | <i>Domestic Hot Water</i>                                     |
| <b>EAHP</b>      | <i>Exhaust Air Heat Pump</i>                                  |
| <b>EVC</b>       | <i>Electric Vehicle Charging</i>                              |
| <b>FEES</b>      | <i>Fabric Energy Efficiency Standard</i>                      |
| <b>GLA</b>       | <i>Greater Reading Authority</i>                              |
| <b>LZC</b>       | <i>Low and Zero-Carbon technologies</i>                       |
| <b>NCM</b>       | <i>National Calculation Methodology</i>                       |
| <b>PV</b>        | <i>Photovoltaics</i>                                          |
| <b>SAP</b>       | <i>Standard Assessment Procedure</i>                          |
| <b>SBEM</b>      | <i>Simplified Building Energy Model</i>                       |
| <b>TER</b>       | <i>Target Emission Rate</i>                                   |
| <b>TFEE</b>      | <i>Target Fabric Energy Efficiency</i>                        |
| <b>VRF</b>       | <i>Variable Refrigerant Flow</i>                              |



## APPENDIX 2: PLANNING POLICY AND DESIGN GUIDANCE

### The Climate Change Act (2008)

Passed in November 2008, the Climate Change Act mandated that the UK would reduce emissions of six key greenhouse gases, including Carbon Dioxide, by 80% by 2050.

As a consequence, the reduction of carbon dioxide emissions is at the forefront of National, Regional and Local Planning Policy, along with continuing step changes in performance introduced by the Building Regulations Approved Document L (2021).

### National Planning Policy Framework (2024)

The National Planning Policy Framework (NPPF) was published in 2024 (replaces 2023 version) and sets out the government's planning policies for England and states a preference in favour of sustainable development.

The NPPF supports the transition to a low carbon future in a changing climate, accounting for flood risk, coastal change, the reuse of existing resources, including conversion of existing buildings, and the use of renewable resources.

Achieving sustainable development means that the planning system has three overarching objectives:

- **An economic objective** – to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure
- **A social objective** – to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering well-designed beautiful and safe places, with accessible services and open spaces that reflect current and future needs and support communities' health, social and cultural well-being; and
- **An environmental objective** – to protect and enhance our natural, built and historic environment; including making effective use of land, improving biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy.



## Reading Borough Local Plan (2019)

### **CC1: PRESUMPTION IN FAVOUR OF SUSTAINABLE DEVELOPMENT**

A positive approach to considering development proposals will be taken that reflects the presumption in favour of sustainable development contained in the National Planning Policy Framework (NPPF). Where appropriate, the Council will work proactively with applicants jointly to find solutions which mean that proposals can be approved wherever possible.

Planning law requires that applications for planning permission must be determined in accordance with the development plan unless material considerations indicate otherwise. Planning applications that accord with the policies in the development plan (including, where relevant, with policies in neighbourhood plans) will be approved without delay, unless material considerations indicate otherwise. Proposed development that conflicts with the development plan will be refused, unless other material considerations indicate otherwise.

Where there are no policies relevant to the application or the policies which are most important to determining the application are out of date at the time of making the decision then permission will be granted unless material considerations indicate otherwise – taking into account whether:

- The application of policies in the NPPF that protect areas or assets of particular importance provides a clear reason for refusing the development proposed; or
- Any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in the NPPF taken as a whole.

### **CC2: SUSTAINABLE DESIGN AND CONSTRUCTION**

Proposals for new development, including the construction of new buildings and the redevelopment and refurbishment of existing building stock, will be acceptable where the design of buildings and site layouts use energy, water, minerals, materials and other natural resources appropriately, efficiently and with care and take account of the effects of climate change.

To meet these requirements:

- All major non-residential developments or conversions to residential are required to meet the most up-to-date BREEAM 'Excellent' standards, where possible;
- All minor non-residential developments or conversions to residential are required to meet the most up-to-date BREEAM 'Very Good' standard as a minimum;
- All non-residential development or conversions to residential should incorporate water conservation measures so that predicted per capita consumption does not exceed the appropriate levels set out in the applicable BREEAM standard. Both residential and non-residential development should include recycling greywater and rainwater harvesting where systems are energy and cost effective.



### **CC3: ADAPTATION TO CLIMATE CHANGE**

All developments will demonstrate how they have been designed to incorporate measures to adapt to climate change. The following measures shall be incorporated into development:

- Wherever possible, new buildings shall be orientated to maximise the opportunities for both natural heating and ventilation and reducing exposure to wind and other elements;
- Proposals involving both new and existing buildings shall demonstrate how they have been designed to maximise resistance and resilience to climate change for example by including measures such as solar shading, thermal mass, heating and ventilation of the building and appropriately coloured materials in areas exposed to direct sunlight, green and brown roofs, green walls, etc;
- Use of trees and other planting, where appropriate as part of a landscape scheme, to provide shading of amenity areas, buildings and streets and to help to connect habitat, designed with native plants that are carefully selected, managed and adaptable to meet the predicted changed climatic conditions; and
- All development shall minimise the impact of surface water runoff from the development in the design of the drainage system, and where possible incorporate mitigation and resilience measures for any increases in river flooding levels as a result of climate change.

### **CC4: DECENTRALISED ENERGY**

In meeting the sustainability requirements of this plan, developments of the sizes set out below shall demonstrate how consideration has been given to securing energy for the development from a decentralised energy source.

Any development of more than 20 dwellings and/ or non-residential development of over 1,000 sq m shall consider the inclusion of decentralised energy provision, within the site, unless it can be demonstrated that the scheme is not suitable, feasible or viable for this form of energy provision.

Where there is existing decentralised energy provision present within the vicinity of an application site, further developments of 10 dwellings or more or non-residential development of 1,000 sq m or more will be expected to link into the existing decentralised energy network or demonstrate why this is not feasible.

### **CC5: WASTE MINIMISATION AND STORAGE**

Development should demonstrate measures to minimise the generation of waste in the construction, use and life of buildings and promote more sustainable approaches to waste management, including the reuse and recycling of construction waste and the promotion of layouts and designs that provide adequate, well-designed space to facilitate waste storage, reuse, recycling and composting.



#### **CC6: ACCESSIBILITY AND THE INTENSITY OF DEVELOPMENT**

The scale and density of development will be related to its level of accessibility by walking, cycling and public transport to a range of services and facilities, with the densest and largest scale development taking place in the most accessible locations. Unless it can be demonstrated that the accessibility of a site is to be significantly upgraded, for example, by providing high quality pedestrian routes or providing access to good public transport services, any new development must be at a scale, density and intensity appropriate to that level of accessibility.

#### **CC7: DESIGN AND THE PUBLIC REALM**

All development must be of high design quality that maintains and enhances the character and appearance of the area of Reading in which it is located. The various components of development form, including: -

- Layout: urban structure and urban grain;
- Landscape;
- Density and mix;
- Scale: height and massing; and
- Architectural detail and materials

will be assessed to ensure that the development proposed makes a positive contribution to the following urban design objectives: -

- Character - a place with its own identity and sense of place
- Continuity and enclosure
- Quality of the public realm and provision of green infrastructure and landscaping • Ease of movement and permeability
- Legibility - clear image and easy to understand • Adaptability – capable of adaptation over time
- Diversity – meets a wide range of needs.

Developments will also be assessed to ensure that they: -

- Respond positively to their local context and create or reinforce local character and distinctiveness, including protecting and enhancing the historic environment of the Borough and providing value to the public realm;
- Create safe and accessible environments where crime and disorder or fear of crime does not undermine quality of life or community cohesion;
- Address the needs of all in society and are accessible, usable and easy to understand by them, including providing suitable access to, into and within, its facilities, for all potential users, including disabled people, so that they can use them safely and easily;
- Are visually attractive as a result of good high quality built forms and spaces, the inclusion of public art and appropriate materials and landscaping.



Applications for major developments, or other relevant developments, should be accompanied by a design and access statement that deals with all the above matters.

#### **CC8: SAFEGUARDING AMENITY**

Development will not cause a detrimental impact on the living environment of existing residential properties or unacceptable living conditions for new residential properties, in terms of:

- Privacy and overlooking;
- Access to sunlight and daylight;
- Visual dominance and overbearing effects of a development; • Harm to outlook; • Noise and disturbance;
- Artificial lighting;
- Vibration;
- Dust and fumes;
- Smell;
- Crime and safety; or
- Wind, where the proposals involve new development of more than 8 storeys.

The position of habitable rooms, windows and outdoor living spaces will be particularly important. A back-to-back distance of 20 metres between dwellings is usually appropriate, although the circumstances on individual sites may enable dwellings to be closer without a detrimental effect on privacy.

As well as immediate impacts, other aspects to which this policy applies will include matters such as hours of operation of businesses, and effects of traffic movements, particularly of heavy goods vehicles (HGVs). Proposals which would generate regular movements of HGVs on residential roads will not be acceptable.

Where an otherwise acceptable development could change its character to a use that would have a greater impact on amenity without needing planning permission, conditions will be applied to restrict such changes.

#### **CC9: SECURING INFRASTRUCTURE**

Proposals for development will not be permitted unless infrastructure, services, resources, amenities or other assets lost or impacted upon as a result of the development or made necessary by the development will be provided through direct provision or financial contributions at the appropriate time.

Employment development should provide mitigation measures in line with its impacts on labour and skills and on the transport network.

In determining appropriate provision or contribution, the highest priority will be given to the following:



- Transport infrastructure, including major cross boundary or sub-regional infrastructure projects;
- Open space, green infrastructure and other measures to improve or enhance biodiversity;
- Education, including cross-boundary facilities;
- Economic development services and infrastructure, including employment, skills and training development initiatives and childcare provision.

Where relevant a high priority will also be given to the appropriate provision of the following:

- Energy infrastructure, including decentralised energy projects;
- Health provision; and
- Police Service infrastructure.

Other measures, as follows, should also be considered where a specific need is identified and justified:

- Community facilities;
- Leisure and cultural infrastructure;
- Reading Central Area infrastructure and amenities, including public realm and street care enhancements;
- Environmental improvements outside the Central Area, such as within local centres, including off-site street tree and other tree planting;
- Measures to tackle poor air quality or for on-going air quality monitoring; and
- Flood mitigation and prevention measures.

#### **EN10: ACCESS TO OPEN SPACE**

In areas with relatively poor access to open space facilities (including as a result of severance lines), new development should make provision for, or contribute to, improvements to road and other crossings to improve access to green space and/or facilitate the creation or linking of safe off-road routes to parks.

#### **EN12: BIODIVERSITY AND THE GREEN NETWORK**

a) The identified Green Network, the key elements of which are shown on the Proposals Map, shall be maintained, protected, consolidated, extended and enhanced. Permission will not be granted for development that negatively affects the sites with identified interest or fragments the overall network. The Green Network comprises:

- Sites with identified biodiversity interest - Local Wildlife Sites, Local Nature Reserves, Biodiversity Opportunity Areas, protected and priority species and their habitats, Priority and Biodiversity Action Plan habitats, and the River



Thames and all its tributaries (including the River Kennet and the Kennet & Avon Canal); and

- Areas with potential for biodiversity value and which stitch the Green Network together – designated Local Green Space and open green spaces, and existing and potential Green Links.

New development shall demonstrate how the location and type of green space, landscaping and water features provided within a scheme have been arranged such that they maintain or link into the existing Green Network and contribute to its consolidation. Such features should be designed to maximise the opportunities for enhancing this network. All new development should maximise opportunities to create new assets and links into areas where opportunities are as yet unidentified on the Proposals Map.

- b) On all sites, development should not result in a net loss of biodiversity and geodiversity, and should provide a net gain for biodiversity wherever possible. Development should:

- Protect and wherever possible enhance features of biodiversity interest on and adjacent to the application site, incorporating and integrating them into development proposals wherever practicable; and
- Provide new tree planting, wildlife friendly landscaping and ecological enhancements (such as wildlife ponds, bird and bat boxes) wherever practicable.

In exceptional circumstances where the need for development clearly outweighs the need to protect the value of the site, and it is demonstrated that the impacts cannot be: 1) avoided; 2) mitigated or; 3) compensated for on-site; then new development will provide off-site compensation to ensure that there is “no net loss” of biodiversity. Provision of off-site compensation shall be calculated in accordance with nationally or locally recognised guidance and metrics. It should not replace existing alternative habitats, and should be provided prior to development.

#### **EN14: TREES, HEDGES AND WOODLANDS**

Individual trees, groups of trees, hedges and woodlands will be protected from damage or removal where they are of importance, and Reading’s vegetation cover will be extended. The quality of waterside vegetation will be maintained or enhanced.

New development shall make provision for tree retention and planting within the application site, particularly on the street frontage, or off-site in appropriate situations, to improve the level of tree coverage within the Borough, to maintain and enhance the character and appearance of the area in which a site is located, to provide for biodiversity and to contribute to measures to reduce carbon and adapt to climate change. Measures must be in place to ensure that these trees are adequately maintained.



#### **EN15: AIR QUALITY**

Development should have regard to the need to improve air quality and reduce the effects of poor air quality.

- i. Development that would detrimentally affect air quality will not be permitted unless the effect is to be mitigated. The following criteria should be taken into account:
  - Whether the proposal, including when combined with the cumulative effect of other developments already permitted, would worsen air quality;
  - Whether the development is within, or accessed via, an Air Quality Management Area; and
  - Whether it can be demonstrated that a local worsening in air quality that would not detrimentally affect human health or the environment would be offset by an overall improvement in air quality, for instance through reduction in the need to travel.
- ii. Where a development would introduce sensitive uses (such as residential, schools and nurseries, hospitals, care facilities) into, or intensify such uses within, an Air Quality Management Area, detrimental effects on that use will be mitigated. Mitigation measures should be detailed in any planning application. If there are significant detrimental effects that cannot be mitigated, the application should be refused.
- iii. Where required, planning obligations will be used to secure contributions to measures to tackle poor air quality or for air quality monitoring.

#### **EN16: POLLUTION AND WATER RESOURCES**

Development will only be permitted where it would not be damaging to the environment and sensitive receptors through land, noise or light pollution; where it would result in no deterioration in, or ideally enhance, ground and surface water quality; and where adequate water resources, sewerage and wastewater treatment infrastructure will be in place to support the proposed development prior to occupation.

Proposals for development that are sensitive to the effects of noise or light pollution will only be permitted in areas where they will not be subject to high levels of such pollution, unless adequate mitigation measures are provided to minimise the impact of such pollution.

Development will only be permitted on land affected by contamination where it is demonstrated that the contamination and land gas can be satisfactorily managed or remediated so that it is suitable for the proposed end use and will not impact on the groundwater environment, human health, buildings and the wider environment, during demolition and construction phases as well as during the future use of the site.



#### **EN17: NOISE GENERATING EQUIPMENT**

Where noise generating equipment is proposed, the noise source specific<sup>61</sup> level (plant noise level) should be at least 10dBA below the existing background level as measured at the nearest noise sensitive receptor.

#### **EN18: FLOODING AND SUSTAINABLE DRAINAGE SYSTEMS**

Development will be directed to areas at lowest risk of flooding in the first instance, following the Sequential and Exceptions Test set out in the NPPF, and taking into account the effects of climate change. It will consider flooding from all sources, including fluvial, surface water, groundwater and sewer flooding. Where development in areas at risk of flooding is necessary, it will not reduce the capacity of the flood plain to store floodwater, impede the flow of floodwater or in any way increase the risks to life and property arising from flooding. Wherever possible, development should be designed to reduce flood risk, both on- and off-site.

All major developments must incorporate sustainable drainage systems (SuDS) as appropriate and in line with the Government's Technical Standards<sup>64</sup>. Smaller schemes are encouraged to incorporate SuDS, where possible. Runoff rates should aim to reflect greenfield conditions and, in any case, must be no greater than the existing conditions of the site. Schemes should ensure that the movement of water through vertical infiltration as well as horizontal run-off does not worsen contamination effects. Wherever possible, SuDS provision should maximise ecological benefits, link into the existing Green Network, incorporate tree planting and landscaping and avoid damage to existing significant trees, including through changes to the site hydrology. All new developments in areas of flood risk should give priority to SuDS.

#### **H5: STANDARDS FOR NEW HOUSING**

New build housing should be built to the following standards, unless it can be clearly demonstrated that this would render a development unviable:

- a. All new build housing outside the Central Area as defined on the Proposals Map will comply with the nationally-described space standard.
- b. All new build housing will be built to the higher water efficiency standard under Regulation 36(3) of the Building Regulations.
- c. All major new-build residential development should be designed to achieve zero carbon homes.
- d. All other new build housing will achieve at a minimum a 19% improvement in the dwelling emission rate over the target emission rate, as defined in the 2013 Building Regulations.
- e. All new build housing will be accessible and adaptable in line with M4(2) of the Building Regulations, unless it is built in line with M4(3) (see below).
- f. On developments of 20 or more new build dwellings, at least 5% of dwellings will be wheelchair user dwellings in line with M4(3) of the Building Regulations. Any market homes provided to meet this requirement will be 'wheelchair adaptable' as defined in



part M, whilst homes where the Council is responsible for allocating or nominating an individual may be 'wheelchair accessible'.

### **H8: RESIDENTIAL CONVERSIONS**

Proposals to convert buildings into self-contained flats or for multiple occupation will be assessed against the impact on the amenity and character of the surrounding area, particularly in terms of intensification of activity, loss of privacy, loss of external amenity space, the provision and location of adequate on-site car parking and the treatment of bin storage areas and other related servicing.

Proposals to convert properties into self-contained flats or for multiple occupation will only be acceptable where:

- The proposal respects the physical character of the area in terms of scale, location, materials and design, the arrangement of doors, windows and other principal architectural features;
- The proposal would not, either individually or cumulatively, unduly dilute or harm an existing mixed and sustainable community through the significant loss of single family housing;
- There are no unacceptable adverse impacts to residents of the scheme or surrounding properties arising from noise and disturbance in terms of the number and layout of units proposed and the proximity to other properties;
- There is no inappropriate stacking and location of rooms between units;
- Bin and cycle storage is of an appropriate size and standard for the units proposed and should be located at ground floor level with easy access; and
- The resulting property or properties would provide adequate internal floorspace and headroom for residents.

Additionally, in the case of conversions of houses to self-contained flats:

- The property to be converted measures more than 120 square metres gross;
- At least 25% of the units formed and, where there are 4 or fewer units at least one unit of accommodation, should be suitable for family occupation with a minimum of two bedrooms.

Additionally, in the case of sui generis houses in multiple occupation (HMOs):

- The property to be converted measures more than 120 square metres gross;
- There is sufficient communal space.

Additionally, in areas covered by an Article 4 direction that restricts changes of use from Class C3 to Class C4:

- Planning permission will not normally be granted where the proportion of HMOs (either C4 or sui generis) will result in HMOs representing 25% or more of the residential properties within a circle of 50m radius measured from the application site.



#### **H10: PRIVATE AND COMMUNAL OUTDOOR SPACE**

Dwellings will be provided with functional private or communal open space, including green space wherever possible, that allows for suitable sitting-out areas, children's play areas, home food production, green waste composting, refuse storage, general outdoor storage and drying space. Houses will be provided with private outdoor space whereas flats may be provided with communal outdoor space, balconies and/or roof gardens.

The design of outdoor areas will respect the size and character of other similar spaces in the vicinity, clearly identify whether they are private or communal spaces, ensure that they are appropriately related to main entrances, enhance safety and the perception of safety for future residents and the general public, and not be compromised by the relationship of other buildings which may be detrimental in terms of overlooking, overbearing or overshadowing.

#### **TR1: ACHIEVING THE TRANSPORT STRATEGY**

Proposed development should contribute appropriately to meeting the objectives of the most up-to-date Local Transport Plan or any successor document, including sub-strategies, specific projects identified and the local action plans.

Planning permission will not be granted for major development proposals unless there is a commitment to implement measures to promote and improve sustainable transport facilities, such as through provision to encourage walking, cycling and the use of public transport; and through agreed travel plans, safe routes to local facilities and services, including schools and parks, and similar measures.

All development proposals should make appropriate provision for works and contributions to ensure an adequate level of accessibility and safety by all modes of transport from all parts of a development, particularly by public transport, walking and cycling, in accordance with any agreed transport assessment submitted as part of the application.

#### **TR3: ACCESS, TRAFFIC AND HIGHWAY-RELATED MATTERS**

In determining proposals involving a new or altered access onto the transport network, improvement works to the transport network, the creation of new transport infrastructure or the generation of additional trips on the transport network, consideration will be given to the effect on safety, congestion and the environment. Development will only be permitted where:- i) Accesses and works to the highway comply with the adopted standards of the Transport Authority; ii) The development would not have a material detrimental impact on the functioning of the transport network; iii) The proposals would not be detrimental to the safety of users of the transport network, including pedestrians and cyclists; iv) The proposal would not generate regular movement of heavy goods vehicles (HGVs) on unsuitable roads, or on roads without easy access to the Classified Highway Network; and v) For non-residential uses, or new dwellings on classified roads, off-street servicing would be provided. Proposals involving either the construction of a new site access, or a material increase in the use of an existing site access, directly onto the Classified Highway Network will not be acceptable if they would be likely to result in the encouragement of the use of



the network for short local trips or compromise the safe movement and free flow of traffic on the network or the safe use of the road.

#### **TR4: CYCLE ROUTES AND FACILITIES**

Developments will be expected to make full use of opportunities to improve access for cyclists to, from and within the development and to integrate cycling through the provision of new facilities. Development of new facilities for cycling, such as cycle hire points and cycle parking, will be acceptable.

The cycle routes identified in the most up-to-date Cycling Strategy will be maintained, enhanced and added to or extended. Development will not detrimentally affect an identified cycle route. Where opportunities exist, improvements to that route, including the provision of connecting routes, and/or cycling facilities will be sought within developments or through planning contributions.

#### **TR5: CAR AND CYCLE PARKING AND ELECTRIC VEHICLE CHARGING**

Development should provide car parking and cycle parking that is appropriate to the accessibility of locations within the Borough to sustainable transport facilities, particularly public transport.

Development should make the following provision for electric vehicle charging points:

- All new houses with dedicated off-street parking should provide charging points;
- Within communal car parks for residential or non-residential developments of at least 10 spaces, 10% of spaces should provide an active charging point.

#### **The Housing Standards Review and implications on Local Planning Policy (2015)**

On March 25<sup>th</sup>, 2015, the Government confirmed its policy to limit energy-efficiency targets that can be imposed on a development as a result of the Housing Standards Review. New developments should not be conditioned to achieve a reduction in Carbon Emissions exceeding a 19% improvement over the requirements of Approved Document L (2021) – the equivalent energy performance of a Code for Sustainable Homes Level 4 dwelling.

In addition, the Government confirmed that the Code for Sustainable Homes is no longer an applicable standard for planning permissions granted on or after March 26<sup>th</sup>, 2015. If a Local Planning Authority has an existing policy requirement for the CSH it may still condition the Ene 1 and Wat 1 requirements for CSH Level 4, but cannot require assessment against the remaining categories and full CSH Certification.

Sites with planning permission granted prior to March 25<sup>th</sup> 2015, can still be assessed and certified against the Code for Sustainable Homes, where there is a requirement to do so (known as legacy sites).



A CSH requirement can also apply where a previously approved Outline Planning Permission has been granted prior to March 25<sup>th</sup> 2015.



## **APPENDIX 3: DOMESTIC WATER EFFICIENCY CALCULATIONS**

*Please refer to the next page for the Domestic Water Efficiency Calculations.*

# Water efficiency calculator for Kenavon Drive, Reading

Our reference: **B.KD.RG1**  
Regulation: **Part G (2015) Enhanced**

Assessor: **MK**  
Date issued: **19-12-2024**. Revision:

This Compliance Checklist follows the methodology as listed in Appendix A of UK Building Regulations Approved Document AD G (2016). The targets comply with requirements of Part G (2015) Enhanced as used in England.

Table A1: The water efficiency calculator

| Installation type                                              | Unit of measure                            | Capacity / Flow rate | Use factor | Fixed use litres/person/day | Litres per person per day |
|----------------------------------------------------------------|--------------------------------------------|----------------------|------------|-----------------------------|---------------------------|
| <b>WC</b> (single flush)                                       | Flush volume (litres)                      | 0.0                  | 4.42       | 0                           | <b>0.00</b>               |
| <b>WC</b> (dual flush)                                         | Full flush volume (litres)                 | 6.0                  | 1.46       | 0                           | <b>8.76</b>               |
|                                                                | Part flush volume (litres)                 | 3.0                  | 2.96       | 0                           | <b>8.88</b>               |
| <b>WCs</b> (multiple fittings)                                 | Average effective flushing volume (litres) | 0.0                  | 4.42       | 0                           | <b>0.00</b>               |
| <b>Taps</b> (excluding kitchen / utility room taps)            | Flow rate (litres per minute)              | 4.0                  | 1.58       | 1.58                        | <b>7.90</b>               |
| <b>Bath</b> (where shower also present)                        | Capacity to overflow (litres)              | 150.0                | 0.11       | 0                           | <b>16.50</b>              |
| <b>Shower</b> (where bath also present)                        | Flow rate (litres per minute)              | 8.0                  | 4.37       | 0                           | <b>34.96</b>              |
| <b>Bath only</b>                                               | Capacity to overflow (litres)              | 0.0                  | 0.50       | 0                           | <b>0.00</b>               |
| <b>Shower only</b>                                             | Flow rate (litres per minute)              | 0.0                  | 5.60       | 0                           | <b>0.00</b>               |
| <b>Kitchen / utility room sink taps</b>                        | Flow rate (litres per minute)              | 5.0                  | 0.44       | 10.36                       | <b>12.56</b>              |
| <b>Washing machine</b>                                         | Litres/kg of dry load                      | 8.2                  | 2.10       | 0                           | <b>17.16</b>              |
| <b>Dishwasher</b>                                              | Litres/place setting                       | 1.3                  | 3.60       | 0                           | <b>4.50</b>               |
| <b>Waste disposal unit</b>                                     | Litres/use                                 | 0.0                  | 3.08       | 0                           | <b>0.00</b>               |
| <b>Water softener</b>                                          | Litres/person/day                          | 0.0                  | 1.00       | 0                           | <b>0.00</b>               |
| Total calculated use                                           |                                            |                      |            |                             | <b>111.22</b>             |
| Contribution from greywater (litres/person/day) from Table 4.6 |                                            |                      |            |                             | <b>0.00</b>               |
| Contribution from rainwater (litres/person/day) from Table 5.5 |                                            |                      |            |                             | <b>0.00</b>               |
| Normalisation factor                                           |                                            |                      |            |                             | <b>0.91</b>               |
| Total water consumption                                        |                                            |                      |            |                             | <b>101.21</b>             |
| External water use                                             |                                            |                      |            |                             | <b>0.00</b>               |
| Total water consumption (litres/person/day)                    |                                            |                      |            |                             | <b>101.21</b>             |
| Maximum target                                                 |                                            |                      |            |                             | <b>105.00</b>             |